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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,332	02/22/2002	Thomas Howard Bruce Cranor	RCA 89783	7855
7590	08/24/2004			
Joseph S Tripoli Thomson Multimedia Licensing Inc PO Box 5312 Princeton, NJ 08543-5312			EXAMINER PHAN, THO GIA	
			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,332

Applicant(s)

CRANOR ET AL.

Examiner

Tho G. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3,4,8,10 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/22/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1. Claims 5-7 are withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b) as being drawn to a method for reducing multipath distortion in a television signal which relates to signal processing. Election was made on 5/13/04. Accordingly, the nonelected claims 5-7 should be cancelled in the next response.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Akiyoshi et al (4,100,496) [submitted by applicant].

Akiyoshi et al in figure 4 show a plurality of antenna elements 14,15 for receiving the television signal, wherein each of said plurality of antenna elements receives a respective one of a plurality of spatially unique signals, each of the plurality of spatially unique signals being a different replica of the television signal; an adaptive combiner 18, coupled to the plurality of antenna elements 14,15 for generating a spatially combined

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signal; and a receiver coupled to the adaptive combiner for demodulating the spatially combined signal (see column 2, lines 30-44 and column 5, lines 5-17).

5. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Tadama et al (3,573,830).

Tadama et al in figures 1-16 disclose a loop antenna comprising a plurality of conductive strips 1a,2a arranged in a circular pattern, where each strip comprises at least one narrowed portion; a feed point (no reference number) comprising a gap (a space between element 1 and 2) defined by the at least one narrow portions of each strip; a signal coupler (not shown, coupled to the load 3) proximate the feed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyoshi et al in view of Tada et al (4,338,606) [submitted by applicant].

Akiyoshi et al have been discussed above but fail to teach a loop antenna having a plurality of feed ports. However, Tada et al in figures 1-2 show a loop antenna having a plurality of feed ports PF1-PF4. It would have been obvious design choice to provide a loop antenna having a plurality of feed ports as taught by Tada et al for the purpose of selectively

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connecting the impedance element to another of the feeder, so that the directivity characteristic of the antenna system is variable controlled (see abstract).

8. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadama et al in view of O'Connor (4,121,219).

Tadama et al have been discussed above and also show a square substrate/support 19,20 but fail to teach a transformer and a circular substrate. However, O'Connor in figures 1-2 teaches a transformer (see column 3, line 37). It would have been obvious design choice to provide a transformer as taught by O'Connor for the purpose of impedance matching.

Regarding the substrate having a circular shaped, it would have been obvious to one skilled in the art to employ different shapes, since such a modification would have involved a mere change in the shape or profile of a component. A change in shape or profile is generally recognized as being within the level of ordinary skill in the art.

Allowable Subject Matter

9. Claims 3-4, 8, 10 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

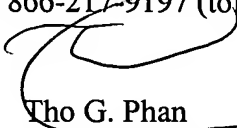
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Osada et al, Herman, Carter and Bouko et al are cited as of interested and illustrated a similar structure to loop antenna assembly.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho G. Phan whose telephone number is 571-272-1826. The examiner can normally be reached on (M-R), Monday-Thursday (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tho G. Phan
Primary Examiner
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